

## **REMARKS**

Claims 1-13 are now pending in the application. Claims 1, 2, 5, 11, and 12 stand rejected under 35 U.S.C. § 102(b). Claims 3, 4, 6-10 have been indicated to contain allowable subject matter. Claim 13 is allowed. Applicants acknowledge the Examiner for indicating that claims 3, 4, 6-10, and 13 contain allowable subject matter. The above amendments and the following remarks are considered by Applicants to overcome each rejection raised by the Examiner and to place the application in condition for allowance. An early Notice of Allowance is therefore requested.

In view of the above amendments and the following remarks, Applicants requests the allowance of claims 1-13.

### **I. Rejection of Pending Claims 1, 2, 5, 11, and 12 Under 35 U.S.C. § 102(b)**

Claims 1, 2, 5, 11, and 12 stand rejected as being anticipated by Takahashi. (U.S. Patent No. 5,402,159). This rejection is traversed and believed overcome in view of the following discussion.

#### **A. Relevant Law**

"A claim is anticipated if each and every limitation is found either expressly or inherently in a single prior art reference." *Bristol-Myers Squibb v. Ben Venue*, 246 F.3d 1368, 1374 (Fed. Cir. 2001). Identity of invention requires that a prior reference disclose to one of ordinary skill in the art all elements and limitations of the patent claim. *Scripps Clinic v. Genentech*, 927 F.2d 1565, 1576 (Fed. Cir. 1991). Absence from the reference of any claimed element negates anticipation. *Kloster Speedsteel AB v. Crucible, Inc.*, 230 USPQ 81 (Fed. Cir. 1986).

#### **B. Summary of Cited References**

Takahashi discloses a piezoelectric ink jet printer using a laminated piezoelectric actuator. The head for a piezoelectric ink jet printer includes a plurality of ejector devices for ejecting ink droplets. Each ejector device has an ink channel body defining an ink channel. The actuator is made up of a plurality of piezoelectric ceramic layers, a plurality of internal

positive electrode layers, and a plurality negative electrode layers, which are laminated in such a way that each piezoelectric ceramic layer is sandwiched between each internal positive electrode layer and each internal negative electrode layer.

### **C. Argument**

The Examiner asserts that Takahashi teaches all the features recited in claims 1, 2, 5, 11, and 12. Applicant respectfully disagrees with the Examiner's analysis.

Since claims 2, 5, 11, and 12 depend from independent claim 1, Applicant will address independent claim 1 first. Claim 1 in part recites the actuator unit has a plurality of active portions which are opposed in a first direction to said pressure chamber at respective different positions in a second direction perpendicular to the first direction and each of which includes a piezoelectric sheet, and a first electrode and a second electrode which are opposed to each other in a direction of thickness of the piezoelectric sheet that is parallel to the first direction, such that the first and second electrodes cooperate with each other to sandwich the piezoelectric sheet.

Applicants respectfully submit that Takahashi fails to teach or suggest a droplet ejecting apparatus having an actuator unit having a plurality of active portions which are opposed to the pressure chamber at respective different positions along the pressure chamber. Although Takahashi discloses active portions opposed to multiple pressure chambers (See Figure 3), Takahashi does not teach or suggest multiple active portions for a pressure chamber at respective different positions along the length of the pressure chamber.

This distinction can be explained in greater detail in view of Figure 7 of the present application. Pressure chamber 16 is shown extending in the horizontal direction with a length  $L_c$ . The plurality of active portions (61a, 61b) are positioned opposed to the pressure chamber and along the length  $L_c$  of the pressure chamber 16. Since the two active portions 61a and 61b are substantially aligned with lengthwise opposite ends of the pressure chamber 16, the volume of the pressure chamber 16 as a whole can be changed. Therefore, pressure can be efficiently applied to the ink accommodated in the pressure chamber 16, and a droplet of ink can be smoothly ejected from the pressure chamber.

Takahashi merely discloses an active portion over the pressure chamber and does not teach or suggest a plurality of active portions provided over the length of the pressure chamber as provided in the claimed invention. Therefore, it is respectfully submitted that the Takahashi fails to teach or suggest the actuator unit has a plurality of active portions which are opposed in a first direction to said pressure chamber at respective different positions in a

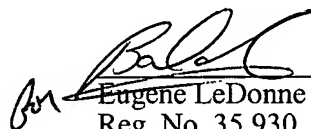
second direction perpendicular to the first direction and each of which includes a piezoelectric sheet, and a first electrode and a second electrode which are opposed to each other in a direction of thickness of the piezoelectric sheet that is parallel to the first direction, such that the first and second electrodes cooperate with each other to sandwich the piezoelectric sheet. Therefore, Applicants request the withdrawal of the rejection of claim 1 under 35 U.S.C. 102(b).

Claims 2, 5, 11, and 12 are dependent upon independent claim 1. Therefore, it is submitted that for at least the reasons mentioned above, claims 2, 5, 11, and 12 recite patentable subject matter. Accordingly, Applicants request the withdrawal of the rejection of claims 2, 5, 11, and 12 under 35 U.S.C. 102(e).

## II. Conclusion

In view of the above amendments and remarks, Applicants submit claims 1-13 recite subject matter that is neither taught nor suggested by the applied references. Claim 1 is amended. No new matter is presented. Thus, for the reasons presented above, claims 1-13 are believed by Applicant to define patentable subject matter and should be passed to issue at the earliest possible time. A Notice of Allowance is requested.

Respectfully submitted,

 Res- 50,900  
Eugene LeDonne  
Reg. No. 35,930  
REED SMITH LLP  
599 Lexington Avenue  
New York, NY 10022  
(P) 212-521-5402  
Attorney for Applicant